

WE CLAIM:

1. A moveable vehicle energy recovery apparatus, comprising:

- 5 (a) an air capture unit having a mounting assembly for mounting on said moveable vehicle in a position to capture oncoming air when said moveable vehicle is in motion;
- (b) a fan rotatably mounted in said air capture unit at a location where it is driven by the incoming air;
- 10 (c) generator coupled to said fan and operative to rotate in response to rotation of said fan and to generate power;
- (d) an electrical coupler couplable at one end to said generator and at another end to a destination power load.

15 2. The apparatus of claim 1, wherein said fan has a horizontally disposed axis.

20 3. A moveable vehicle energy recovery apparatus, comprising:

- 25 (a) an air capture unit having a mounting assembly for mounting on said moveable vehicle in a position to capture oncoming air when said moveable vehicle is in motion;

- (b) a plurality of fans rotatably mounted in said air capture unit;
- (c) a generator coupled to said fans and operative to rotate in response to rotation of said fans and to generate power; and
- 5 (e) an electrical energy conduction line couplable at one end to said generator and at another end to a destination power load on said moveable vehicle.

10 4. The apparatus according to claim 3, wherein said fans are mounted on vertically disposed axes and are disposed in a row.

5. The apparatus according to claim 3, wherein said fans are mounted on vertically disposed axes and are disposed in a 15 plurality of spaced apart rows.

6. A moveable vehicle having an energy recovery apparatus, said energy recovery apparatus comprising:

- 20 (a) an air capture unit mounted on said moveable vehicle in a position to capture oncoming air when said moveable vehicle is in motion;
- (b) a fan rotatably mounted in said air capture unit in a position to be driven by the incoming air;
- 25 (c) a generator coupled to said fan and operative to rotate in response to rotation of said fan and to generate power; and

(a) an electrical energy conduction line coupled at one end to said generator and at another end to a destination electrical load on said moveable vehicle.

5 7. The moveable vehicle according to claim 6, wherein said fan rotates about a vertical axis.

8. A moveable vehicle having an energy recovery apparatus, said energy recovery apparatus comprising:

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(a) an air capture unit mounted on said moveable vehicle in a position to capture oncoming air when said moveable vehicle is in motion;

(b) a plurality of fans rotatably mounted in said air capture unit;

(c) a generator coupled to said fans and operative to rotate in response to rotation of said fans and to generate power; and

(b) an electrical energy conduction line coupled at one end to said generator and at another end to a destination load on said moveable vehicle.

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9. The apparatus of claim 8, wherein said fans rotate about a vertical axis and are aligned in a row parallel to a direction of travel of said vehicle.

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10. The apparatus of claim 8, wherein said fans rotate about a vertical axis and are aligned in a plurality of spaced apart rows parallel to a direction of travel of said vehicle.

5 11. A moveable vehicle having an energy recovery apparatus, said energy recovery apparatus comprising:

- (c) a fan mounted on said vehicle in a position in which passing air caused by movement of said vehicle causes said fan to rotate;
- (d) a generator coupled to said fan and operative to rotate in response to rotation of said fan and to generate power; and
- (e) a power line coupled at one end to an output of said generator and another end to a destination load on said moveable vehicle.

12. The moveable vehicle according to claim 11, wherein said fan rotates about a vertical axis.

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13. The moveable vehicle according to claim 11, wherein said fan moves said incoming air in a curvilinear path and discharges it at an angle to the incoming air.

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14. The moveable vehicle according to claim 11, including an elongated duct having a mouth to receive incoming air and operative to direct the incoming air to a remotely located fan.

15. A method or energy recovery for a moveable vehicle, comprising:

5 (a) capturing oncoming air resulting from movement of a moveable vehicle and directing the captured air into a fan;

10 (b) coupling the fan to a generator so that rotation of the fan causes rotation of the generator and consequent generation of power; and

15 (c) conducting the power to a destination load on the moveable vehicle.

16. The method of claim 15, wherein said incoming air is
15 captured by a duct leading to said fan.